

## REMARKS

The amendments to the specification and claims do not add new matter. The amendment to the specification merely recites the Applicants' claim of priority as required. The amendment adding claims 19-37 is supported by the specification as originally filed. Specifically, claim 19 parallels originally filed claim 1, except that claim 19 recites that the agent for promoting the coloring and the distribution of pigment in homopolar media is "a mixture of waxes" wherein "said waxes in said mixture being selected from the group consisting of a non-ionogenic wax, a wax having anionic ionogenicity, a wax having cationic ionogenicity, and a mixture thereof." Support for the "mixture of waxes" as recited in the specification appears at page 5, ¶ 22 ("Preferably, wax mixtures are used, in which case both mixtures of waxes with anionic and/or cationic ionogenicity or mixtures of non-ionogenic waxes as well as mixtures of non-ionogenic waxes and waxes with anionic or cationic ionogenicity can be used.").

Claim 20, which recites that the mixture of waxes is a mixture of "two waxes" or "three waxes," is supported by the formulations of Pigment granulate mixtures 1 and 3 (three waxes) and Pigment granulate mixtures 2 and 4 (two waxes), as disclosed at pages 9-11 of the specifications.

Claim 21, which is directed to the granulate of claim 19, wherein the waxes in said mixture have "melting points in the range of 50°C to 200°C," is supported in the specification at page 5, ¶ 20 ("In a preferred embodiment of the invention, waxes with these properties have a melting point in the 50°C to 200°C range. . .").

Claim 22, which is directed to the granulate of claim 21, wherein the waxes in said mixture have "melting points in the range of 50°C to 130°C," is supported in the specification at page 5, ¶ 20 ("In a preferred embodiment of the invention, waxes with these properties have a melting point in the 50°C to 200°C range, preferably 50°C to 130°C.").

Claim 23, which is directed to the granulate of any one of claims 19, 20, 21 or 22 wherein said "mixture of waxes comprises a non-ionogenic wax and a wax with anionic ionogenicity," is supported throughout the specification, including at page 5, ¶ 22 ("mixtures of non-ionogenic waxes and waxes with anionic or cationic ionogenicity can be used.")

Claim 24, which is directed to the granulate of claim 19, wherein the “non-ionogenic wax is a polyethylene wax,” is supported throughout the specification, including at page 5, ¶ 21 (“polyethylene waxes”); and at page 11 (“Ultralube™ MD 2000: polyethylene wax (non-ionogenic, melting range: 127°C”).

Claim 25, which is directed to the granulate of claim 19, wherein said mixture of waxes is a “mixture of a polyethylene wax and a styrene-acrylate wax,” is supported throughout the specification, including at pages 5-6, bridging sentence (“mixtures of polyethylene wax and styrene-acrylate wax . . . can be used”).

Claim 26, which is directed to the granulate of claim 19, wherein said mixture of waxes is a “mixture of a polyethylene wax and a paraffin wax,” is supported throughout the specification, including at page 6, lines 1-2 (“or mixtures of polyethylene wax and paraffin wax can be used”).

Claim 27, which is directed to the granulate of claim 19, wherein the total quantity of said waxes ranges from “0.1 to 5 percent by weight” based on the total weight of the mixture to be granulated, is supported throughout the specification, including at page 8, ¶ 29 (“The total quantity of the agents to promote the coloring and the distribution of the pigment in homopolar media used in the inventive process for the manufacture of pigment granulates is . . . preferably 0.01 to 5 percent by weight, . . . based on the total quantity (weight) of the mixture to be granulated.”).

Claim 28, which is directed to the granulate of claim 27, wherein the total quantity of said waxes ranges from “0.4 to 3.5 percent by weight” based on the total weight of the mixture to be granulated, is supported throughout the specification, including at page 8, ¶ 29 (“The total quantity of the agents to promote the coloring and the distribution of the pigment in homopolar media used in the inventive process for the manufacture of pigment granulates is . . . especially preferred 0.4 to 3.5 percent by weight, based on the total quantity (weight) of the mixture to be granulated.”).

Claim 29, which is directed to the granulate of claim 19, wherein the “dispersant for polar systems” is selected from the group consisting of a “mono- or polyhydroxy compound, a mono- or polyhydroxyamino compound, a (poly)carboxylate, polyacrylate, lignin sulfonate, sulfated polyglycol ether, a melamine formaldehyde condensate, a naphthalene formaldehyde condensate, an alkyl-, aryl, or an alkylaryl

sulfonate, a polyglycol, a polyglycol derivative, a polyether, a phosphate, a silicate, an aluminate, a borate, a cellulose derivative, and combinations of these compounds,” is supported in the specification, including at page 7, ¶ 25 (“With this invention the dispersants for polar systems in the mixture to be granulated can be chosen from hydrophilic and amphoteric, ionogenic, and non-ionogenic compounds. Preferably, these agents can be chosen from mono- or polyhydroxy compounds, mono- or polyhydroxy amine compounds, (poly)carboxylates, polyacrylates, lignin sulfonates, sulfated polyglycol ethers, melamine formaldehyde condensates, naphthalene formaldehyde condensates, alkyl-, aryl, or alkylaryl sulfonates, polyglycols, polyglycol derivatives, PVP, polyethers, phosphates, silicates, aluminates, borates, cellulose derivatives, or combinations of these compounds.”).

Claim 30, which is directed to the granulate of claim 29, wherein the “monohydroxyamino compound is 2-amino-1-propanol, 2-amino-1-butanol, 3-amino-1-propanol or 2-amino-2-methyl-1-propanol,” is supported in the specification, including at page 7, ¶ 27 (“The monohydroxyamino compounds used as dispersants include monovalent, primary, secondary, or tertiary, alkyl-substituted or non-substituted amino alcohols, such as 2-amino-1-propanol, 2-amino-1-butanol, 3-amino-1-propanol, 2-amino-2-methyl-1-propanol, and the like.”).

Claim 31, which is directed to the granulate of claim 30, wherein the “monohydroxyamino compound is 2-amino-2-methyl-1-propanol,” is supported in the specification, including at page 7, ¶ 27 (“In a preferred embodiment of this invention, 2-amino-2-methyl-1-propanol is used.”).

Claim 32, which is directed to the granulate of claim 29, wherein the “monohydroxy compound is 1-propanol, 2-methyl-1-propanol or 2-methyl-2-propanol,” is supported in the specification, including at page 7, ¶ 26 (“Monohydroxy compounds include monovalent, primary, secondary, or tertiary, alkyl-substituted or non-substituted alcohols, such as, for example, 1-propanol, 2-methyl-1-propanol, 2-methyl-2-propanol, and the like.”).

Claim 33, which is directed to the granulate of claim 32, wherein the monohydroxy compound is “2-methyl-1-propanol,” is supported in the specification, including at page 7, ¶ 26 (“Preferably, 2-methyl-1-propanol and glycols are used in the case of this invention.”).

Claim 34, which is directed to the granulate of claim 19, wherein the total quantity of the dispersants for polar systems ranges from “0.1 to 3 percent by weight” based on the total weight of the mixture to be granulated, is supported in the specification, including at page 8, ¶ 30 (“The total quantity (weight) of the dispersants for polar systems used in the inventive process for the manufacture of pigment granulates is at least 0.05 percent by weight, preferably 0.1 to 3 percent by weight, . . . based on the total weight of the mixture to be granulated.”).

Claim 35, which is directed to the granulate of claim 34, wherein the total quantity of the dispersants for polar systems ranges from “0.25 to 1.7 percent by weight” based on the total weight of the mixture to be granulated, is supported in the specification, including at page 7, ¶ 30 (“The total quantity (weight) of the dispersants for polar systems used in the inventive process for the manufacture of pigment granulates is at least 0.05 percent by weight, preferably 0.1 to 3 percent by weight, and especially preferred 0.25 to 1.7 percent by weight, based on the total weight of the mixture to be granulated.”).

Claim 36, which is directed to the granulate of claim 19, wherein the pigment is selected from the group consisting of an “iron oxide pigment and a soot pigment,” is supported in the specification, including at page 4, ¶ 19 (“The objective of the invention is solved by the pigments, in particular iron oxides and/or soot pigments. . .”).

Claim 37, which is directed to the granulate of claim 19, wherein the polar system is “water,” is supported in the specification, including at page 6, ¶ 23 (“In order to increase the solid contents, especially of the pigment contents, in the mixture to be granulated, in accordance with the invention, dispersing agents or dispersants for **polar systems** can be used which promote the liquefaction of solid pigment after polar solvents are added, such as **water**. . .”); emphasis added in bold.

### Summary of the Prior Bases For Rejection in the Parent Application

Claims 19-25 of the parent application were rejected under 35 U.S.C. § 102(b) for allegedly being anticipated by U.S. Pat. 4,230,501 (Howard).

Claims 19-25, 28, 31 and 34-37 of the parent application were rejected under 35 U.S.C. § 102(b) for allegedly being anticipated by U.S. Pat. 5,389,137 (Linde).

Each of these prospective bases for rejection is addressed in Sections I-II, respectively, which follow.

#### I. 35 U.S.C. § 102(b) and 103(a) over Howard

Claims 19-25 of the parent application (USSN 09/914,991) were rejected under 35 U.S.C. § 102(b) for allegedly being anticipated by U.S. Pat. 4,230,501 (Howard). Claim 19 of the present application corresponds in part to claim 19 of the parent application. Claim 19 is directed to “a pigment granulate.” In contrast, the pigment particles of Howard are formed by “fusing” and “milling”:

The method of preparing this pigment composition comprises the steps of (a) mixing the components of the composition, (b) **fusing** the mixture so that the waxy substance coats, or at least partially coats, the pigment particles, and (c) **milling** the mixture, to give a composition in which the particles have a size range of about 0.01-4.00 microns.

[Howard at col. 1, lines 53-59; emphasis added in bold.]

One skilled in the art recognizes that from a structural perspective, the pigment granulate of the Applicants' invention is built up in size from smaller particles that are stuck together. As a result, the pigment granulate of the Applicants invention would have round edges. In contrast, the pigment particles of Howard are made by crushing (“milling”) larger sized fusion products, to produce particles having rough edges. By structural analogy, the Applicants' particles would look like chocolate chip cookies and Howard's particles would look like a bag of broken cookies.

Further, Linde, the art previously cited by the Patent Office establishes that those skilled in the art recognize another structural difference between the **milled particles**

of Howard and the “granulate” of the Applicants’ invention, *i.e.*, the **milled particles** of Howard are **1000 times smaller** than Applicants’ “**granulates**.” Specifically, U.S. Pat. 5,389,137 (Linde) teaches at col. 4, lines 4-6 that “**granulates**” have a size in the mm range: (“The granules thus obtained possess a maximum diameter of **up to 3 mm** and some granules possess diameters of **8 to 10 mm**”); emphasis added in bold. In contrast, Howard teaches at col. 1, lines 57-59 that his **milled pigment particles** have a size in **micron** range: (“milling the mixture, to give a composition in which the particles have a size range of about **0.01-4.00 microns**”). Thus Howard discloses **milled pigment particles** that are physically about **1000 times smaller** than the Applicants’ **granules** and Howard’s milled pigment particles give rise to the very dusting problem that the Applicants’ invention is directed to solving.

For these reasons, Howard would not be anticipatory of the Applicants’ pending claims, each of which is directed to a pigment “granulate”. Moreover, Howard’s movement in the direction of micron sized particles would not have rendered obvious the Applicants claimed granulate. The allowance of claims 19-37 over Howard is respectfully requested.

## **II. 35 U.S.C. § 102(b) and 103(a) over Linde**

Claims 19-25, 28, 31 and 34-37 of the parent application (USSN 09/914,991) were rejected under 35 U.S.C. § 102(b) for allegedly being anticipated by U.S. Pat. 5,389,137 (Linde). Claim 19 of the present application corresponds in part to claim 19 of the parent application. Both claims are directed to “a pigment granulate.”

At page 3 of the Official Action of 06/10/03 in the parent application, the Patent Office has acknowledged that “The prior art of record fails to teach or suggest the claimed process for producing the pigment granulate comprising a **dispersant, one or more pigments, one or more waxes having a melting point of 50°C to 200°C** and water.” [Emphasis added in bold.]

Consistent with the Patent Office’s statement, claim 19 of the present application is directed to the resulting pigment granulate comprising “one or more pigments, a **mixture of waxes** to promote the coloring and the distribution of pigment in homopolar

media, and a dispersant for polar systems, said waxes in said mixture being selected from the group consisting of a non-ionogenic wax, a wax having anionic ionogenicity, a wax having cationic ionogenicity, and mixtures thereof." [Emphasis added in bold.] At best, any pigment composition in Linde discloses the use of a single wax and not a mixture thereof. Thus, Linde would not anticipate claim 19 of the present application. Moreover, claims 20-37, which depend from claim 19 would also be free of the art of record. For all these reasons, the allowance of claims 19-37 over Linde is respectfully requested.

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